

### 3. Characteristics of Urban Vegetable Farmers and Gender Issues

Emmanuel Obuobie and Lesley Hope

*This chapter presents a profile of farmers and sellers of irrigated urban produce and related gender issues. It explains why men dominate irrigated vegetable production and women the retail of most but not all vegetables.*

#### 3.1 Profile of Urban Vegetable Farmers

Most urban open-space farmers in Ghana have rural backgrounds and had some experience in farming before coming to urban areas. They come to town mainly to seek good employment opportunities, to trade or to enhance their expertise and education. They take up urban agriculture as an opportunity to earn the money needed for these principal pathways. With low investments and returns possibly after a few weeks, many of these farmers realized that urban vegetable production is a profitable venture. A study conducted by Obosu-Mensah (1999) in Accra revealed that out of 200 urban farmers interviewed, 66% had no intention of stopping farming even if they were offered regular salaried employment. This was because open-space urban agriculture could bring in very good earnings in spite of the risks of crop loss and other issues. Those who indicated that they would stop one day mentioned general sickness or loss of land as major factors that could compel them to do this.

**Educational level:** Though there is a wide variation in literacy levels, many urban open-space farmers are illiterate. Kumasi and Accra show higher levels of literacy among farmers compared to Tamale (Table 3.1) where most farmers are illiterate. However, the illiteracy in Tamale is not restricted to urban farmers because this is a general issue in Northern Ghana.

**TABLE 3.1.** Educational status of farmers.

Educational attainment	Northern Region %		Greater Accra Region %		Ashanti Region %	
	Regional	Tamale	Regional	Accra	Regional	Kumasi
Illiterate	79	79	29	48	43	35
Primary	15	17	45	4	45	51
Secondary	4	3	18	44	8	12
Tertiary	2	1	8	4	4	2

Source: IWMI, unpublished.

These findings should also not be extrapolated to urban agriculture in general. Home or back yard gardens, for example, are also very common among well-educated public servants.

**Religion:** Table 3.2 shows the religious status of farmers interviewed in comparison with the regional data from the population census carried out in 2010. In all three cities the share of Muslims conducting open-space farming was significantly higher than across the region. This may be because many northerners migrate towards the cities in search of job opportunities. Urban agriculture might be their first choice but could also be the second if they do not succeed otherwise because of low levels of education.

**TABLE 3.2.** Religious status (%) of urban farmers compared to the regional average.

Religious affiliation	Northern Region	Farmers in urban Tamale	Greater Accra Region	Farmers in urban Accra	Ashanti Region	Farmers in urban Kumasi
Christians	21	13	83	30	78	61
Muslims	60	86	12	67	15	37
Others	19	1	5	3	7	2

Source: IWMI, unpublished; GSS (2012a).

A random sample of farmers from the three cities showed that 50 to 80% were between 20 and 40 years of age (Table 3.3). This group represents those in the working class who migrate to cities to look for jobs and end up in farming to either supplement their income or because they failed to get paid jobs. Accra had the highest percentage of farmers over 40 years.

**TABLE 3.3.** Age distribution of farmers in the cities.

Age	Kumasi		Accra		Tamale	
	Frequency	%	Frequency	%	Frequency	%
Below 20	4	4	7	5	1	1
20-30	33	33	45	33	19	25
31-40	35	35	30	21	41	54
Above 40	28	28	56	41	15	20

Source: IWMI, unpublished.

**Household size and gender:** Open-space irrigated urban vegetable farming in Ghana is a predominantly male-oriented activity. On average, less than 10% of all urban open-space farmers were women and many of them cultivated indigenous vegetables, not exotic ones. In contrast to farming, women dominate vegetable marketing, especially the retail of leafy vegetables. This concurs with earlier findings in Ghana (e.g. Obosu-Mensah 1999; Gbireh 1999; Armar-Klemesu and Maxwell 1998) but is not representative for all subregional countries as shown in later in this chapter. In general, more than a half of the open-space farmers are married and occasionally involve their wives in the marketing of produce. Table 3.4 shows the household sizes of the farmers in the three cities. While Tamale showed a relatively wide distribution in household size, Accra’s and especially Kumasi’s open-space farmers were often single migrants, either from the North or neighboring countries, and had only small households where they live now, with up to five household members. The farm household size distribution in Tamale shows fewer members than the urban average which calls for further investigation.

**TABLE 3.4.** Household sizes (%) of open-space farmers in the three cities compared to the average number of family members per urban household according to the 2010 Census.

Family size	Kumasi		Accra		Tamale	
	Farmer	Census average	Farmer	Census average	Farmer	Census average
Alone	35%		20%		15%	
1-5	59%	3.8	49%	3.5	50%	
6-10	6%		26%		30%	6.2
Above 10	0		5%		5%	
Total	100%		100%		100%	

Source: IWMI, unpublished; GSS (2012a).

**Economic profile:** Urban farming provides employment and income for a chain of beneficiaries, such as farmers, market sellers, suppliers of agricultural input, etc. and therefore contributes to livelihood support and the economy (Obosu-Mensah 1999; Danso et al. 2002a; Drechsel et al. 2006; see also chapter 4). Out of 138 farmers interviewed in Accra, about 60% rely on irrigated vegetable cultivation as their only source of income, while 33% do it as a

supplementary income source. In Tamale, with more seasonal vegetable production, most vegetable producers use it to supplement their incomes from staple crop farming. Only a minority of open-space cultivators uses urban vegetable farming as a one-off means of getting money for a later investment or as a source of food (Figure 3.1). In general, farmers of exotic vegetables do not consume their own produce.

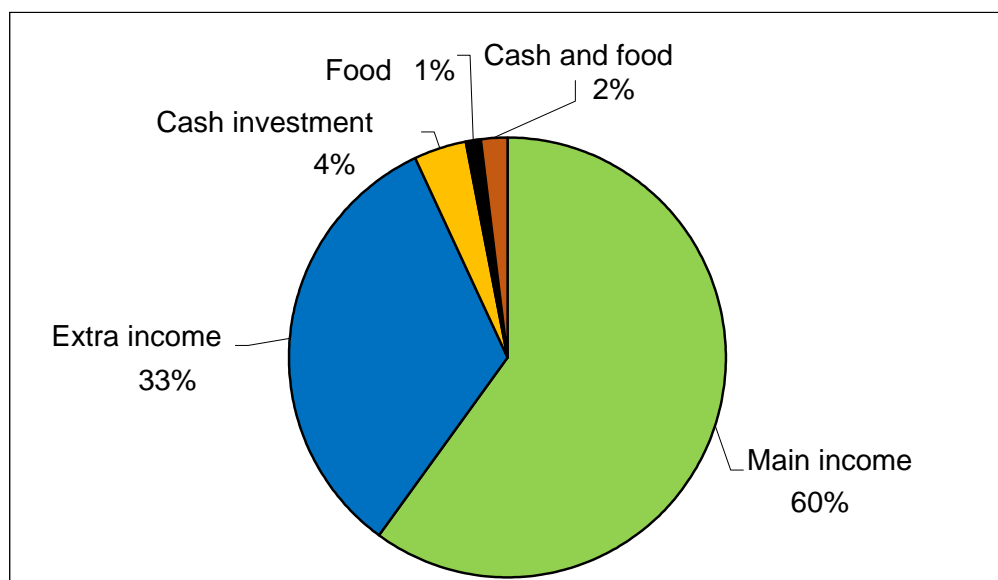


FIGURE 3.1. Main objectives of farmers cultivating vegetables in urban Accra.

Among those for whom farming was a secondary activity in Accra, security guards were predominant (57%) while others were masons, painters, mechanics or cleaners. This also applies to Kumasi. Box 3.1 describes the ‘average’ urban vegetable farmer in Ghana.

### 3.2 Overview of Gender Issues in Urban Agriculture

Studies done in many cities in Africa, particularly in South and East Africa indicate that most “urban farmers” are women. Examples include Kenya, Mozambique, Tanzania, Uganda, Zambia and Zimbabwe. This is because women continue to bear primary responsibility for household sustenance and well-being (Chancellor 2004), or because of their lower access to education than men, thus, they have fewer opportunities of finding suitable waged employment in the formal sector (Obosu-Mensah 1999). However, there are large differences between countries, cultivated crops (traditional vs. exotic), on-site and off-site farming, and between subsistence production and market gardening. In a survey comparing 20 cities in West Africa, men dominated open-space vegetable farming in 16 cities or 10 of 13 countries (Table 3.5).

BOX 3.1. The ‘average’ vegetable farmer in urban open spaces of Ghana

The typical Ghanaian urban vegetable farmer is a male and within the 31-40-year age group. He cultivates exotic vegetables like cabbage, cucumber, lettuce, onion, cauliflower and green pepper on a land area of between 0.01 and 0.12 ha. Vegetables are cropped year-round, unless maize pays better in the rainy season. The average farmer could have either primary or secondary school education or be illiterate, often with some education from an Arabic (language) school. The average urban farmer is religious. Muslims account for two out of five farmers in Kumasi, three out of five farmers in Accra and four out of five farmers in Tamale. The average farmer is married and occasionally his wife markets his produce. In many cases however, he would have regular visits from market women who also might provide him with credit. The average vegetable farmer, if he is in Accra or Kumasi, will grow vegetables as his main occupation and primary source of income. His major extra occupation, if in Accra, would be working as a security guard. In Tamale, cultivating vegetables would be his major occupation. He has on average up to five dependents in Kumasi but can have more in Accra and Tamale. Usually, his dependents are supported by income from his farm. A ‘cousin’ might assist him; otherwise the farm work is not a family business.

The average urban vegetable farmer is a migrant from a rural area in Ghana or even comes from e.g. Togo and has some experience in farming before coming to the city. Getting engaged in urban farming was not his idea, until he learns that he is not able to favorably compete for a job in other sectors. However, once he is established in producing vegetables, it becomes a serious business and he does not want to quit even when he finds better salaried employment. He knows his extension officer, at least in Accra and Kumasi, but has stopped expecting any specific advice on his key problems like price fluctuations and marketing of produce, pest control and quality seed supply.

His main source of irrigation water is an open drain if he is in Accra or Tamale, or (polluted) surface water if he is in Kumasi or Takoradi. In all cases, he does not own the land, but he uses it for free. His ‘informal’ status and low tenure security limit his access to credit and investments in farm infrastructure. He might join a farmers’ association on his site. When asked about his occupational health risks through his exposure to ‘wastewater’, he does not consider it a special issue, like he does not perceive his normal living conditions (without own toilet and piped water) as peculiar or unhealthy.

Source: IWMI farm survey data (2000-2005).

**TABLE 3.5.** Gender ratio in open-space farming in various cities of West Africa

Country	City	Female (%)	Male (%)
Benin	Cotonou	25	75
Burkina Faso	Ouagadougou	38 (0-72)	62
Cameroon	Yaoundé	16	84
Côte d'Ivoire	Abidjan, Bouaké	5-40	60-95
Gambia	Banjul	90	10
Ghana	Accra, Kumasi, Takoradi, Tamale	10-20	80-90
Guinea	Conakry, Timbi-Madîna	70	30
Mali	Bamako	24	76
Mauritania	Nouakchott	15	85
Nigeria	Lagos, Ibadan	5-25	75-95
Senegal	Dakar	5-30	70-95
Sierra Leone	Freetown	80-90	10-20
Togo	Tsévié, Lomé	20-30	70-80

Source: Drechsel et al. (2006).

To understand the role that gender plays in urban vegetable production in Ghana, an appraisal was conducted among vegetable farmers and traders in Accra, Kumasi, Tamale and Takoradi. The surveys showed that most vegetable sellers are women, while open-space farmers in the cities are often in nine of 10 cases men (Table 3.5). This situation has been verified in many studies on urban farming in Ghana (Hope et al. 2009). In peri-urban areas and urban household back yard gardening, on the other hand, the situation can be different (IWMI, unpublished). The appraisal tried to understand possible reasons for the gender separation and led to some initial conclusions.

### 3.3 Male Dominance in Urban Open-space Vegetable Farming

**Cultural and economic constraints:** Societal definition of gender roles provides one explanation for why men dominate open-space vegetable farming in urban Ghana. Generally, cash crop farming is considered in most Ghanaian communities as work for men. The reason might however be that women, particularly in northern cities (Tamale), have in many cases less access to land and resources to commence market-oriented farming (Zibrilla and Salifu 2004). In fact, many women who farm usually cultivate crops such as *ayoyo* and other indigenous vegetables, which require low initial capital investment for seeds and less water

than exotic vegetables (reduced labor, see below). In neighboring Ouagadougou, more women than men grew traditional vegetables for subsistence supply and as cash crop, but more men than women grew higher-priced exotic vegetables solely for income generation (Gerstl 2001). While in rural areas, livelihood options are limited, and farming is a family or household affair with family members being the main source of labor, the city offers more alternative options for income generation. Farming is thus much more often an individual activity, only with occasional help from spouses and children. Also this might not favor women farmers who have traditionally more household-related duties than men.

**Access to land:** Land issues were mentioned as a major constraint for women in Tamale (Zibrilla and Salifu 2004). In fact, in some regions, under customary law, women do not have a right to hold land except through male relatives or as widows. However, they can have user rights unless land is in short supply. Sometimes they are pushed towards more marginal plots. In another study of cities both men and women farmers explained that most urban land being cultivated belongs to the government (see Obosu-Mensah 1999) and therefore access does not depend on customary rules and one's gender but rather on the individual's ability to lobby among those who farm already or with the caretaker of the plot.

**Nature of vegetable production:** Exotic vegetables are the main crops grown for commercial purposes in urban areas of Ghana. However, associated productive activities, particularly irrigation and land preparation, which are done manually, are very laborious. Irrigation can take between 40 and 70% of farmers' time and will be carried out in all seasons (Danso et al. 2002a; Tallaki 2005). In addition, farmers use two 15-liter watering cans to repeatedly convey water from the water source to field, an estimated distance of 50 to 100 m. This is in contrast to the general practice of women and children bearing water jars on their heads – watering cans cannot be transported as head loads. Moreover, most land preparation is commonly executed by men. These activities coupled with pesticide application via knapsacks signal female-unfriendly methods of farm operation associated with urban vegetable farming. Table 3.6 shows the farm activities usually performed by men, women and children. In this context it is interesting to see a gender balanced farmer community in La, Accra, where gravity flow and furrow irrigation is common.

**TABLE 3.6.** Division of farm tasks by gender in peri-urban Kumasi.

Tasks (x = usually applicable; - = less applicable)	Men	Women/children
Clearing the bush	x	-
Raising beds	x	-
Nurturing crops	x	-
Planting and transplanting	x	x
Weeding	x	x
Fertilizing	x	-
Spraying	x	-
Manual water fetching and transport as head loads	-	x
Manual watering using buckets	x	x
Manual water catching and watering using two cans	x	-
Mechanical watering (using pumps)	x	-
Harvesting	x	Market women

Source: Cornish et al. (2001); modified.

Another decisive activity in the cultivation of some exotic vegetables is nurturing. The surveys of Cornish et al. (2001) showed that women had less experience in this field and correspondingly less related skills. As seeds are expensive, nurturing skills are crucial for the whole business, which requires a high germination rate and survival of the seedlings (Obuobie et al. 2004).

### 3.4 Female Dominance in Marketing of Urban Farm Produce

In contrast to vegetable farming, women dominate the vegetable marketing sector, in particular retail, as also observed in neighboring countries (Gerstl 2001). Women's general dominance in retail is partly attributed to the Ghanaian tradition that retail in general is a woman's job, though with many exceptions, e.g. between crops and also at different levels of trading (wholesaling, retailing and itinerant trading). There are crops, which are traditionally handled by men, while others are 'women crops'. Among vegetables, cabbage, sweet pepper and cucumber are normally associated in Ghana with men, while lettuce, carrots, spinach, okro, garden eggs and others are associated with women. This differentiation is less binding on urban farms where men grow whatever gives profit, but obvious in wholesale and retail. While for example large onions from Niger are sold by young men in Accra's streets, and there are many male cabbage wholesalers, there are hardly any male lettuce wholesalers and no male lettuce retailers. The time and means needed to access the crops also play a role.



While most lettuce is grown within the urban area, it requires more time and transport to buy cabbage from villages in city proximity. Long days away from home (duties) have been cited as some of the barriers women traders face.

Both, men and women involved in marketing vegetables see marketing as a quick way to make money on a daily basis, unlike farming which can take months depending on the crop before a farmer receives income from his farm activities. Though some men expressed willingness to sell their own produce on the market, they are held back by the prevailing culture, i.e. men might wholesale certain crops but retail even less. Those who tried to enter this nontraditional domain complained about nontransparent procedures and often gave up unless they had insider support (farmer E. Opare, personal communication). Entering markets is in general not easy as many (especially staple crop) commodities have a so-called 'queen mothers' who control and regulate each sales slot.

Very commonly, women traders enter contracts with the farmers to earmark certain crops for a particular harvest. They pay in part in advance so farmers can buy seeds etc., and later harvest themselves the best beds. Women pursue marketing activities as their primary means of obtaining cash income for household expenditure. They appreciate the low initial investments compared to farming.

These market vendors are not necessarily members of the household of vegetable farmers. In fact, most are not related to the farmers. Women vendors control the income they generate from the sale of vegetables and use it to support the family. Their income especially that of the wholesalers, can be higher than that of the farmers (Drechsel et al. 2006). Women spend income mainly on food and sometimes on clothing for the children, while the men spend their income on accommodation, children's school fees, utility bills and other major needs or projects of the family. Women also sometimes save part of their income and use it to support their husbands in major projects. Though men and women in a household may not have formally agreed on who spends on what, generally, the Ghanaian culture has already defined who bears what responsibility in the home and this is inherent, at least in the more traditional parts of the society.

### **3.5 Conclusions**

Two clear facts emerged in view of open-space vegetable farming: male dominance in farming and female dominance in retail, while wholesale shows mixed gender. This has in part traditional reasons. Women farmers feel mostly constrained by existing irrigation

practices, while men feel significantly oppressed by their dependency on credit and prices dictated by market women without sharing essential market information. For some commodities, men are making headway, especially in areas of wholesale trading where overland transport is required. Listening to complaints, however, one can deduce that male farmers feel significantly more oppressed than women, in terms of their dependency on market women and inability to enter retail. These complaints can be substantiated by the observation that wholesalers particularly (but also many retailers) can make higher profits than farmers (chapter 4). On the other hand, women who wish to farm vegetables (Figure 3.2) face significantly fewer obstacles than men trying to sell vegetables in markets.

Such issues have to be considered in gender equity programs as equal opportunities for both gender in farming and marketing might show fewer advantages for women than they have now (Hope et al. 2009; Drechsel et al. 2013). Improved irrigation technology (like access to a motor pump) appears to facilitate a better gender balance on farm. Treadle pumps were rejected by farmers in Accra as the pumps and water hoses require two farmers at the same time and pulling the hose can damage the young vegetables or their beds severely. Moreover, farmers did not know where to store the (relatively heavy) pump overnight as it could easily be stolen.



FIGURE 3.2. A relatively seldom picture among urban vegetables farmers in Ghana (photo IWMI).